

In response to the Restriction Requirement, Applicant hereby elects with traverse Group I, claims 1-13 and 39-41, for prosecution on the merits.

The requirement for restriction is respectfully traversed. The Office Action alleges that the inventions of Groups I and II are independent and distinct because the process of Group II “can be practiced with a reaction control motor that is not a PDE, for example with an ion propulsion unit.” The Office Action’s position is not well-founded because independent claim 14 specifies that thrust is generated “by controllably igniting detonation of at least one propellant in a pulsed detonation engine [PDE]” (emphasis added). The remaining Group II claims likewise specify a pulsed detonation engine by virtue of their dependence (directly or indirectly) on claim 14. Applicant respectfully submits that the Office Action has not demonstrated that the claims of Groups I and II are independent and distinct as required by M.P.E.P. § 806.05(h).

In addition, the Office Action has not established that search and examination of both Group I and Group II claims would present an undue burden. In the absence of an undue burden, all claims must be searched and examined. M.P.E.P. § 803.

Reconsideration and withdrawal of the restriction requirement and treatment of all claims on the merits in the next Office Action are respectfully requested.

### **Election of Species**

In response to the various election of species requirements, Applicant hereby elects the following species: (i) spacecraft control, (ii) a piezo controller, and (iii) a spark plug igniter.

The Office Action indicates that additional elections of species are required if Group II claims are elected. Because Applicant is requesting withdrawal of the restriction requirement, Applicant hereby provisionally elects the species of (iv) liquid oxidizer and (v) fullerenes carbon structure for the Group II claims.

Claims 1-10 and 12-41 are readable on each of the elected species.

The Examiner is invited to telephone the undersigned at the number listed below if doing so would be helpful to resolve any outstanding issues.

Respectfully submitted,

BANNER & WITCOFF, LTD.

Date: August 29, 2005

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**TRANSMITTAL  
FORM**

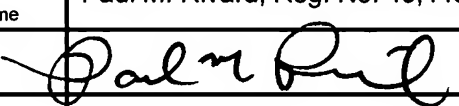
(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)		Application Number	10/796,279
		Filing Date	03/10/2004
		First Named Inventor	Shmuel Eidelman
		Art Unit	3643
		Examiner Name	Collins, Timothy D.
Total Number of Pages in This Submission	4	Attorney Docket Number	000479.00126

**ENCLOSURES (check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts, along with copy of Notice mailed 6/8/04 <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Election and Response
Remarks <div style="text-align: center;"> <b>RECEIVED</b>          06 2005          RECEIVING &amp; REVIEW       </div>		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	Paul M. Rivard, Reg. No. 43,446
Signature	
Date	August 29, 2005

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name			
Signature		Date	

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.